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## Food Production and Supply in Mexico

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The principal foodstuff in Mexico is corn. In fact, corn is the most important crop in Mexico, judged by almost any standard of measurement. It represents about one-quarter of the value of agricultural production, it occupies approximately one-half the acreage in crops, and it furnishes almost half the total calories in the diet. Sugar, beans, rice, wheat, and meat are the other principal food items, which are supplemented by varying quantities of fruits and vegetables in season. Disregarding the inadequacy of the statistical data, production of foods appeared to decline from 1910 to 1920, although since that time the trend has been slowly but steadily upward. Even so, the average per capita Mexican diet before the war was below a level considered essential to health and efficiency. Recent increases have, however, raised this average.

#### Principal Food Crops

#### TRENDS IN PRODUCTION

The year-to-year variations in Mexico's food production are pronounced, influenced among other things by the uncertainty of the rains throughout most of the country. Aside from these ups and downs, however, there are fairly definite trends in individual crops, as well as in the composite index of production. One such composite index 1 (including fibers as well as food products) based on 1929 as 100 shows a decided downward trend during the early years of the Revolution, from 143 in 1910 to a low of 73 in 1921, followed by an upward swing from that low point until the present time (fig. 1). Official production data are not available for the years 1910-24 so that the index cannot be checked for those years. Its principal value for that period is not in showing long-time trends but in pointing up the wide year-to-year fluctuations in agricultural production in Mexico.

An index 2 constructed on the same base year for the five principal foods—corn, wheat, sugar, rice, and beans—from 1925 to date parallels the general index in most years, being relatively higher during the early 1930's. Of these five foods, sugar and rice show the most spectacular rises, which may be attributed almost entirely to acreage gains rather than to improved yields (fig. 2). During the war years there has been some slight upward tendency in the yields of corn and beans. Production of the export crops, tomatoes and chickpeas, has gone up sharply during the war. Coffee has just about held its own, and banana production is making a come-back after dropping off in the early 1940's (fig. 3).

Increases in production have been marked since the early war years. Population has also gone up rapidly, from a prewar average of 18,600,000 to about 22,000,000 in 1947. Per capita production gains, therefore, are much less. Government interest in expanded output continues and thus stimulates efforts to hold the gains made and to broaden them where possible.

#### LOCATION AND DISTRIBUTION

The placing of the early Indian settlements in the Central Plateau of Mexico probably resulted from the combination of an equable temperature and relatively good growing conditions in that area. The larger clusters of population are still there, and most of the corn and beans are grown in the mountain valleys and on the lower mountain slopes of the plateau. Topography is a much more limiting factor in Mexico than in many other countries. The whole central region where people like to live is extremely rugged. Another limiting

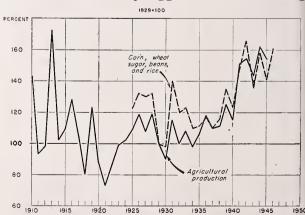


FIGURE 1.—Index of agricultural production in Mexico.

<sup>\*</sup>Office of Foreign Agricultural Relations.

<sup>&</sup>lt;sup>1</sup>Angulo, Humberto G. indice de la producción agrícola. Rev. de Econ. 9 (1): 19-24, illus. Mexico, D. F. 1946.

<sup>&</sup>lt;sup>2</sup> Constructed in the Latin American Division, Office of Foreign Agricultural Relations.

1935 - 39 = 100 PERCENT PERCENT CORN SUGARCANE 120 Acreage 180 160 100 Yield per acre Acreage 80 140 1935-39 AV. ACREAGE = 7,501,000 ACRES 1935-39 AV. YIELD PER ACRE = 9 BUSHELS 140 Yield per acre-120 WHEAT Acreage -120 100 100 1935-39 AV. ACREAGE = 215,000 ACRES Yield per 1935-39 AV. YIELD PER ACRE=21.2 SHORT TONS 80 acre 180 80 RICE 1935-39 AV. ACREAGE = 1,244,000 ACRES 1935;39 AV. YIELD PER ACRE = 11 BUSHELS 160 160 Acreage BEANS Acreage 140 140 120 120 100 100 Yield per acre. Yield per acre 80 80 1935-39 AV. ACREAGE = 1,419,000 ACRES 1935-39 AV. ACREAGE = 95,000 ACRES 1935-39 AV. YIELD PER ACRE = 182 POUNDS 1935-39 AV. YIELD PER ACRE = 42 BUSHELS

FIGURE 2.—Acreage and production of selected foodstuffs, average 1935-39, annual 1940-46.

1947

1945

60

1935-39 1941

influence is inadequate rainfall. The northern plains are arid, and even in the Central Plateau

1943

1941

supplemental irrigation is desirable. The coastal plains are wet and hot, providing a natural

1943

1945

1947

1935-39

60

habitat for such crops as bananas and sugar but discouraging settlement.

Corn and Beans.—Corn and beans are usually planted together in the same field so that the general producing areas are similar for the two crops. The State of Jalisco is the principal producer of both, followed by Guanajuato, Michoacán, Zacatecas, Veracruz, and Durango. While both crops are grown in every State of the Republic-on Prairie, Chestnut, or Black soils-heaviest production is concentrated on the Central Plateau (fig. 4). About 80 percent of the corn crop is grown in the temperate-climate areas, where the grain is planted from April through July and harvested in October and November. The main harvesting period for beans runs from August through October. Although the temperature is usually satisfactory for these crops on the plateau, rainfall is uncertain in numerous sections, and short crops sometimes result from lack of moisture, as was the case in 1943.

In the warmer zones of Nuevo León and Tamaulipas, an intermediate corn crop, accounting for 10 percent of the total production, is harvested in August and September. Farther down in the valleys and on the coast is still another area accounting for 10 percent of the total corn harvest. This area includes part of Tamaulipas; the Huasteca section of Hidalgo, San Luis Potosí, and Veracruz; and the southern part of Veracruz, Oaxaca, and Nayarit. The harvest is early—from April through June.

Corn is usually produced on small farms for human consumption. Many of these farms are in isolated regions without means of transportation, and the corn is grown for local use only. Because transportation facilities are poor, the Government is encouraging increased acreage in all agricultural areas to provide regional selfsufficiency in this important food.

Wheat.—The center of the wheat area is north of the principal corn-growing region. The State of Coahuila is the most important producer. The four States of Coahuila, Sonora, Guanajuato, and Michoacán together produced almost 60 percent of the total crop in 1946. Wheat was not known in

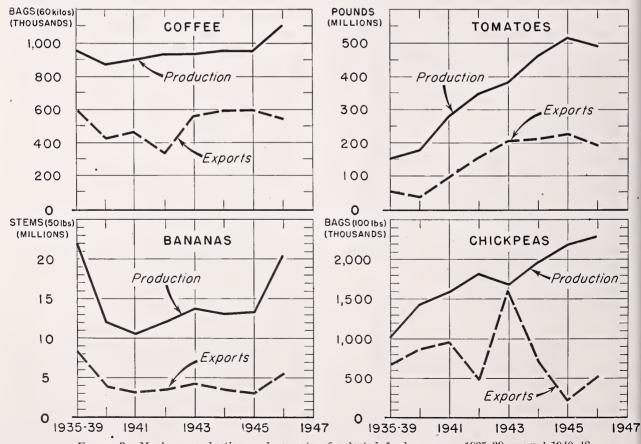


Figure 3.—Mexican production and exports of selected foods, average 1935-39, annual 1940-46.

Mexico until the coming of the Spaniards, and it is not used very extensively now by the farm and village people. Wheat bread, however, is popular in the cities, and consumption, both total and per capita, is increasing (table 1).

Much of Mexico's wheat grows on irrigated lands, especially in the northern States. The wheat harvest, which falls between April and June, usually does not supply the needs of the home market, and imports must make up the deficit. Such imports averaged about one-seventh of the total supply before the war but have been increasing in relative importance recently, even though production has increased somewhat.

Sugarcane.—Sugarcane requires a warm climate, fertile soil, and plenty of moisture, particularly during the growing season. These conditions are found on some of the coastlands and in some of the interior valleys of Mexico. Veracruz on the southeast coast is the principal producer, followed by Sinaloa, Puebla, Tamaulipas, Jalisco, and Morelos. These 6 States accounted for about three-quarters of the total 1945 cane production (fig. 5).

Production of cane has almost doubled since prewar years. Most of the increase has been in the established sugar areas through an extension of the acreage planted.

About two-thirds of the cane goes into refined sugar, almost a fifth into piloncillo—an unrefined brown-sugar loaf—and the remainder into propagation stock, alcohol, aguardiente, and other products. Large sugar mills, located in the important growing regions, produce the refined sugar, but piloncillo is made by small operators in the less important growing areas. Consumption per capita of both refined sugar and piloncillo is increasing rapidly, the combined consumption having risen from just under 34 pounds per capita in 1935-39 to 61 pounds in 1946. While consumption of sugar in 1946 was the highest recorded in any one year in Mexico, it was still below the 73pound per capita ration for the United States and only three-fifths the per capita consumption of this country in 1941.

Rice.—Rice growing in Mexico dates from colonial days when rice was brought over from Spain, and certain varieties entered the port of Acapulco from the Far East. The low valleys in the southern part of Morelos were the principal areas of production, until recently, because of their proximity to Mexico City, and because natural conditions there favor rice culture. They still supply the largest part of the rice used for domestic consumption, but the Yaquí Valley, in southern Sonora, alone produces 40 percent of the country's total crop. The soil and temperature of this valley are favorable, but rainfall is inadequate, and the rice must be grown under irrigation.

Before the war Mexico usually produced a surplus of rice for export, the export portion

Table 1.—Production, net trade, and apparent disappearance of five principal evens in Mexico 1995 16

	Corn <sup>1</sup>					Wheat <sup>2</sup>			
Year	Pro- duc- tion	duc- (+) or ent dis-		Pro- duc- tion	Net imports (+) or exports (-)	Apparent disappearance			
A verage: 1925-29 1930-34 1935-39 Annual:	75,870 +1,746 69,930 +213		1,00 bush 77, 6: 70, 1- 65, 30	els 16 43	1,000 bushels 12, 794 14, 363 14, 284	1,000 bushels +2,277 +1,281 +1,073	1,000 bushels 15,071 15,642 15,357		
1940	77, 820 64, 551 83, 621 92, 760 69, 886 92, 114 75, 000	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		64, 552 7 83, 638 94, 020 0 76, 296 3 94, 027		17, 045 15, 957 17, 973 13, 385 13, 757 12, 741 12, 676	+48 +4,474 +4,209 +10,380 +18,618 +12,041 +11,691	17, 093 20, 431 22, 182 23, 765 32, 375 24, 782 24, 367	
		Bea	ns 3	•	Ī	Riee 1			
verage: 1925-29 1930-34 1935-39	1,000 bags <sup>4</sup> 3,711 2,783 2,471	-		1,000 bags 4 3,588 2,756 2,455		Short tons 56, 754 50, 664 54, 484	Short tons -5,470 -3,515 -13,057	Short tons 51, 284 47, 149 41, 427	
Annual: 1940 1941 1942 1943 1944 1945 1946	3, 266 2, 133 3, 528 4, 098 3, 448 3, 970 3, 197	$\begin{array}{r} -17 \\ -174 \\ -262 \\ -119 \\ -108 \\ -146 \\ -13 \end{array}$		3, 2, 1, 9, 3, 2, 3, 3, 3, 3, 3, 3, 2, 2, 3, 2, 2, 3, 2, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,	59 56 79 40 24	69, 864 77, 176 78, 346 77, 512 82, 031 84, 835 89, 563	+46 -7, 933 -25, 609 -2, 896 +1 +343 +1, 647	69, 910 69, 243 52, 737 74, 616 82, 032 85, 178 91, 210	
	Pilonci	llo ²				Refined	sugar		
,	Produc and ap ent d appears	par- is-		oduc- ion	po	Net im- orts (+) exports (-)	Apparent disappearanee	Esti- mated carry- over, Dec. 31	
A verage: 1925-29. 1930-34. 1934-39. Annual: 1940. 1941. 1942. 1943. 1944. 1945.	1,000 si tons	short s ns 91 80		000 nort ons 198 233 329		1,000 short tons -3 -25 -1	1,000 short tons 195 202 243	1,000 short tons 0 5 6	
	73 102 131 127 144 149 156 154		324 362 467 454 430 411 413			$     \begin{array}{r}       (7) \\       +59 \\       -1 \\       +20 \\       +43 \\       +102 \\       +119     \end{array} $	388 384 456 479 485 518 532	17 54 64 59 47 42 88	

<sup>&</sup>lt;sup>1</sup> Trade and disappearance for calendar year shown, production for calen-

<sup>&</sup>lt;sup>2</sup> Production for crop year ending June 30 of year shown; trade and apparent disappearance for calendar years shown; wheat imports include flour in terms of grain.

3 Trade and disappearance for calendar year shown; production for crop

<sup>Trade and disappearance for year ending Mar. 31.
Bags of 100 pounds.
Carry-over on Dec. 31, 1934.
Carry-over on Dec. 31, 1939.
Less than 500.</sup> 

coming largely from the Sonora harvests. Production in that State grew rapidly, and the opening in 1942 of the Angostura Dam in central Sonora provided irrigation to stimulate increased production. Exports have been curtailed recently, however, to conserve food supplies for home use.

Fruits.—No one area can be called the fruit center of Mexico, although the production of specific fruits is concentrated in a few States. Because of its wide variety of growing conditions, Mexico can and does produce tropical fruits, such as bananas, pineapples, mangoes, and avocados; semitropical fruits, such as limes and oranges; as well as the Temperate Zone apples, pears, and grapes. Veracruz, Chiapas, and Oaxaca are the principal centers for tropical and semitropical fruits. Veracruz, for example, is an important producer of oranges, limes, pineapples, avocados, mangoes, bananas, plantains, and mammees. Puebla, on the Central Plateau, on the other hand, is the principal producer of apples and apricots and is a major supplier of pears, peaches, plums, and quinces. Veracruz in 1940 was the principal orange State, followed by Nuevo León, San Luis Potosí, Jalisco, Puebla, and Yucatán, these six supplying more than two-thirds of all the oranges. Grape production is concentrated largely in Coahuila and Baja California, these two accounting for more than three-fourths of the total. Although pineapples grow from the State of Sonora south to the Guatemalan border, by far the most important area is Loma Bonita, inland about 60 miles from the Gulf of Mexico, in Veracruz and Oaxaca.

The 18 principal fruits of Mexico constituted more than 11 percent of the total value of agricultural production in 1940, although they were

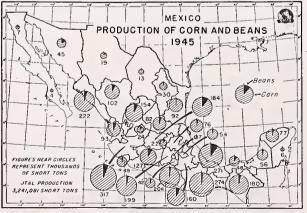


Figure 4.—Map of Mexico showing the wide distribution of corn and bean production.

Table 2.—Livestock numbers in Mexico, 1930 and 1940

Kind	1930	1940
Cattle	1,000 head 10,083 6,544 3,698 3,674	1,000 head 11, 622 6, 850 5, 068 4, 401

grown on less than 1.5 percent of the total area in crops. In that year oranges were the most valuable fruit, and the value of production exceeded 1 million dollars (United States currency) each for oranges, bananas, avocados, mangoes, and plantains. For a comparison of the important fruits one with the other, 1940 is a poor year, however, because for the first time in many years bananas (Gros Michel) did not hold first place.

A complete shift in location of commercial banana production has taken place since the sigatoka disease hit the Mexican fields. Previously the State of Tabasco was the leading producer, followed by Veracruz, Chiapas, and Jalisco. Now Chiapas is in the lead, and Tabasco has fallen far behind so far as exports are concerned. Bananas also have constituted a significant part of the Mexican diet. In addition to the Gros Michel (the variety best known in United States markets), the plantain or cooking banana and several other varieties are produced. The Gros Michel or Roatán is, however, the variety that is exported.

Vegetables.—Many different kinds of vegetables grow throughout Mexico. In the winter-vegetable area on the west coast tomatoes, peppers, green peas, and eggplant are raised for the export market. Tomatoes are the most important of these crops, accounting for 85 percent of the total shipments. Production is limited almost exclusively to the river valleys of the Mayo, in Sonora, and the El Fuerte, Mocorito, Sinaloa, and Culiacán, in Sinaloa. Chickpeas are another important export vegetable, the export portion of the crop also being raised in Sonora and Sinaloa. The State of Jalisco is the principal producer of chickpeas for the domestic market. They are largely fed to livestock rather than utilized directly as human food. Broad-beans are produced primarily in the States of Mexico, Puebla, and Tlaxcala. They are grown chiefly for home consumption, but small quantities are exported in some years. Garlic and onions are also exported from Mexico. Their production is widely scattered over the country, but in the case of onions commercial production is concentrated in two

regions; one in the States of Jalisco and Guanajuato, the other west of Tampico in Tamaulipas.

#### Livestock

Of the livestock produced in Mexico, cattle are the most important. The value of the annual calf crop is estimated at \$25,000,000, second only to the production of corn. According to the 1940 Census, there were 11,600,000 cattle in the country, pretty well scattered throughout the different States but showing some concentration in the southern part of the Central Plateau. Goats are also important, particularly in the more arid regions, followed by hogs and sheep (table 2).

The livestock industry furnishes meat, dairy products, and fats. There are relatively few dairy farms as such; the usual rule is for the animals to be used for the dual purpose of supplying meat and milk, and sometimes power as well. The few dairy farms are located close by large centers of population, such as Mexico City, Guadalajara, Puebla, Monterrey, and Nuevo León. Milk production in 1940 was estimated at more than 350,000,000 gallons. Meat production in 1945 totaled more than 800,000,000 pounds and animal fats almost 125,000,000 pounds (table 3).

#### Production Techniques

With a few notable exceptions, Mexican agriculture is carried on without the aid of mechanized equipment or the benefit of advanced methods of technology. Very little commercial fertilizer is applied, although wide use is made of manure and local bat guano. Sugar is by far the largest beneficiary of commercial-fertilizer application. Approximately three-quarters of the ammonium sulfate used in the country goes for sugar, about 10 percent each for cotton and corn, and the rest for miscellaneous crops. In the use of phosphates and other nitrogenous fertilizers, sugar and cotton account for more than 60 percent of the total, tobacco 15 percent, and winter vegetables and miscellaneous crops about 25 percent.

The majority of the corn and bean farmers cultivate small patches of ground with the aid of oxen power. A simple plow, a hoe, and a machete complete the list of tools and equipment. Sugar farming still depends primarily on hand labor, although a few cane harvesters are in use. It is estimated that less than 0.5 percent of the farms have electric-power service.

Rice growing in the Sonora valleys does not follow the usual pattern of production. Modern cultural techniques have been introduced there, which closely resemble those employed in the central valley of California, and improved varieties of rice are grown. Planting in Sonora is from June through August and harvesting during November and December. After the rice is planted, the fields are flooded for 80 or 90 days and then allowed to dry out enough to permit harvesting of the crop. Light equipment, such as binders, are used, but the land cannot be dried sufficiently for the heavier combines to be used.

The winter-vegetable industry, also on the west coast, is another food enterprise in which the production methods followed are an exception to the usual procedure in Mexico. The vegetables, of which tomatoes are the most important, are grown primarily in large fields with modern equipment. The land is plowed, usually with the aid of a tractor, and then irrigated in preparation for the plants from the seedbeds. The plants are cultivated from 4 to 7 times during the growing season and irrigated from 5 to 10 times.

Modern methods are found also on some of the larger wheat farms where part of the grain is grown under irrigation. In the Laguna and Guaymas areas more than one-quarter of the production is mechanized. There is an increasing use of tractor-drawn combines and threshers.

The use of machinery is increasing steadily and shows a big gain percentagewise, there being approximately 10 times as many tractors in use in Mexico now as in 1938. Cooperative use of equipment by several farmers, either on ejidos or otherwise, is growing. The Government, too, encourages mechanization through provision of credit facilities and the bringing of new land into cultivation by irrigation. By far the greater number of farmers, however, are still small operators with little or no equipment.

Table 3.—Meat production, trade, and apparent consumption, 1935-46

Year	Production	Net imports	Apparent meat con- sumption
1935-39	1,000 pounds 711, 175 734, 317 755, 739 758, 124 718, 654 699, 941 814, 644 781, 000	1,000 pounds 1, 386 709 220 3, 504 177 2, 323 1, 480	1,000 pounds 712, 561 735, 026 755, 519 761, 628 718, 831 702, 264 816, 124

The livestock industry, too, suffers from lack of improved techniques. Although the ratio of the number of cattle to the population is not much less in Mexico than in the United States, the per capita consumption of beef and veal is little more than half as large as it is in this country. Now the industry is further handicapped by an epidemic of foot-and-mouth disease which broke out in the fall of 1946. The prevalence of disease is extensive in the central States, where the cattle population is estimated at about 3,000,000, the sheep at 1,900,000, the swine at 1,700,000, and the goats at 1,500,000. The Mexican Government has prohibited the movement of animals into and out of the infected zones. The United States is now cooperating with the Mexican authorities in an attempt to eradicate the disease. Under existing legislation in the United States, it was mandatory that the United States border be closed to imports of all ruminants and swine from Mexico, to most livestock products, and to imports packed in material likely to be infected, such as straw.

## Marketing and Consumption of Principal Foods

#### INTERNAL MARKETING

Old Indian customs and Spanish practices have influenced materially the food-marketing techniques in Mexico. Particularly for the small farmers who produce only a tiny surplus over their own food needs, the village market is predominant. Such markets are made up of individual producers who sell direct to the consumer from stands or stalls on the street or in covered markets. Even in the larger cities there are numerous small retail outlets and a minimum of wholesale business. Nowhere throughout Mexico are there organized commodity markets such as exist in this country. During the war, attempts were made to channel the commercial portion of specified crops through semigovernmental agencies in order to stabilize prices and ensure regular supplies. The Nacional Distribuidora y Reguladora, S. A. de C. V. is still operating.

Products sold in the small towns and villages are usually brought in on burros or on foot; those traveling longer distances to supply the larger cities reach the market by truck or railway. Usually commission men buy from the growers, or producer cooperatives, and sell in small lots to ven-

dors in the city markets. A network of railroads and highways converge on Mexico City from most parts of the Republic, although transportation is difficult between many outlying cities and towns. The Yucatán Peninsula and the northwest section of the country are almost inaccessible by land to the food-producing regions of Mexico and customarily obtain their food from the United States.

#### FOREIGN TRADE

A majority of the farm people produce just about what they consume and consume almost all they produce. Several commodities, however, are raised in sufficient quantities to provide some exports. Domestic supplies of others must be supplemented by imports. The outstanding food imports before the war were lard and oilseeds; condensed, evaporated, and powdered milk; dried fruits; and some grain, mostly wheat. For most of these, the United States was the principal supplier. During recent years imports of wheat and sugar have become increasingly important, and corn has been imported in large quantities in several years of drought-caused scarcity. Before the war, food exports of importance were bananas, coffee, limes, fresh vegetables, pineapples, and live cattle. On the export side, also, the United States was the principal market for exported food. During the war, the United States became even more important in the total trade. Banana shipments declined during the war years, but marked increases were registered in exports of cattle, fresh tomatoes, and chickpeas (table 4).

Table 4.—Exports of selected products from Mexico, 1935–39, 1940–44, 1945, and 1946

Commodity	Unit	Aver- age, 1935–39	A ver- age, 1940–44	1945	1946
Coffee Bananas Tomatoes Chickpeas Limes Cattle	60-kilo bags1 (132 lbs.) 50-pound stems———————————————————————————————————	Thou- sands 599 8, 174 53, 956 652 8, 830 294	Thou- sands 482 3, 674 141, 391 911 2, 867 459	Thou- sands 595 3, 102 227, 556 228 1, 208 411	Thou- sands 544 5, 429 194, 579 525 4, 252 425

In the neighborhood of 500,000 head of feeder cattle have been shipped annually from the northern border States of Mexico to the United States during recent years. The quarantine measures resulting from the outbreak of foot-and-mouth disease, however, will eliminate this movement of cattle. The effects of this disease on the Mexican economy are likely to be widespread. Because of the probable reduction in work stock, there is a

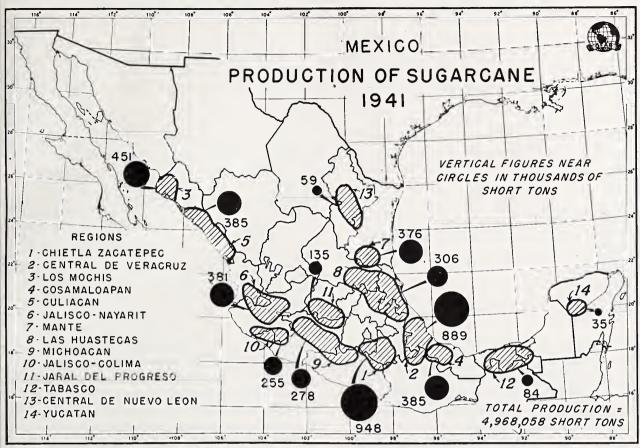


FIGURE 5.—Map of Mexico showing distribution of sugarcane production.

definite possibility that production will be reduced, both of livestock and cultivated crops, if the disease persists.

Marketing arrangements for those products that enter the export trade are somewhat more elaborate than for those sold at home. The winter-vegetable industry on the west coast, for example, is organized to produce almost exclusively for export. Some exporters have their representatives at the border to make arrangements for the sale and clearance of the vegetables, but most of them employ a commission firm or customs broker to take care of the sale at the border, a service which includes responsibility for the inspection and clearance of the produce. Sales of a number of products are handled by cooperative associations of producers. The Confederación de Uniones de Productores de Plátano de Tabasco handles the sale of bananas from Tabasco, and the Unión Nacional de Cosecheros de Piña takes care of part of the pineapple sales. In recent years the Banco Nacional de Comercio Exterior has been instrumental in facilitating agricultural exports.

#### FOOD CONSUMPTION

Many people in Mexico are undernourished as' is evidenced by low labor efficiency and high death rates from diseases associated with malnutrition. Approximately 80 percent of the population falls into a low-income bracket, and of this low income some 85 percent must be spent for food. Although the production and other data are inadequate to give definitive results, the Federal Nutrition Institute in Mexico estimates that the average daily caloric intake during the period 1935-39 was 1,973, or less than the recognized standard for good nutrition. An estimated average obtained by the author from an admittedly incomplete group of foods for this same period was 1,656 calories per day. More than half the total comes from cereals and grains, principally corn. The reported corn crop furnished an estimated average of 871 calories per day for each person during the prewar years (table 5). For much of the rural population, the proportion of corn in the total diet is no doubt much higher. The next most important food is sugar, which is followed by fats and oils and meats.

Table 5—Apparent per capita disappearance in Mexico of selected foods, 1935-46

Food	Average	A verage 1935–39		Average 1940–44		1945		1946 .	
	Per year	Per day	Per year	Per day	Per year	Per day	Per year	Per day	
br brn heat co pans car lopeillo	49 4. 4 13 26	Calories 871 216 19 57 138 36	Pounds 215 68 6.7 15 42 13	Calories 960 300 29 65 223 61	Pounds 237 67 7.7 17 47 14	Calories 1, 058 296 34 74 250 65	Pounds 186 64 8.0 14 47 14	Calories 83 28: 3- 6 25:	
Total eat grd graphable fats (domestic)	38	1, 337 126 34 38	36 4. 3	1, 638 120 48	37 4. 7 9. 1	1,777 123 53 102			
ananas. antains ranges rageapple ther fruit	15 18 3.7	30 15 8 1 29	21 15 - 26 4.5	17 15 12 2 35	23 16 29 6.7	19 17 13 3 36			
omatoes hiekpeas otatoes wetpotatoes ther vegetables	2. 5 8. 3 4. 9	1 11 7 7 7 12	9. 1 3. 8 11 6. 5	2 17 10 9 15	13 8.9 13 6.1	3 41 12 8 16			
Grand total		1,656		1, 940		2, 223			

NOTE.—Seed, feed, and industrial uses have not been deducted. Part of the apparent increase may be attributed to more complete statistical reporting the later years.

The calories furnished by the five principal food crops (corn, wheat, rice, beans, and sugar) during the prewar period amounted to 1,337, or more than 80 percent of the total listed items. And a large quantity of bean production is probably not reported in official statistics.

Adding the calories for the principal food groups gives a total daily intake of 2,223 calories for the year 1945, an apparent increase of onethird over prewar years. Applying this percentage to the prewar figure of the Nutrition Institute, 1,973 calories, which includes a fuller coverage than that shown in table 5, gives a peak caloric intake of 2,644 per day. This compares with the United States average in that year of 3,330. On the other hand, however, part of the indicated increase over prewar years may be due to more adequate statistical coverage in the later years rather than to a real expansion in production and consumption. The increase in the combined production of the five principal food crops was not quite so great as that for total production, being only 31 percent more than the prewar volume.

elPer capita consumption of wheat increased from just under 50 pounds before the war to 67 pounds in 1945. Apparently the average diet includes more sugar and fats than previously but contains about the same quantity of meat. Most of the other food groups show slight increases during the war years. Largely because of a short corn crop in 1945, the 1946 consumption of cereals

declined sharply. Our data have not been adjusted for other than food uses so that another factor is added to errors inherent in the data themselves. For the most important component, corn, however, this is not so serious, since food use approximates 90 percent of the total supply.

Without supplementary food from outside its own borders, Mexico would not have been able to improve its standard of living during the war years. The degree of self-sufficiency in important food items varies from one commodity to another and from one year to the next (table 1). There is usually a slight export surplus of rice and beans, although these have been practically wiped out during the past 2 or 3 years. Back in the period 1930-34 corn was exported, but in the consumption year 1944 imports made up 8 percent of total apparent disappearance because of a drought-reduced domestic crop. Before the war, wheat imports averaged only 15 percent of total disappearance, but recently they have constituted from 44 to 56 percent of the total supply.

Government-sponsored irrigation projects will in time add to the available farm land, and the spread of mechanization and modern techniques will gradually result in larger yields and expanded food production. With continued enlightened leadership, Mexico should be expected to hold the gains already made and advance steadily, even though slowly, toward higher levels of food production and consumption.

#### by FRANK SHEFRIN\*

Wartime subsidies, bonuses, and subventions paid out by the Canadian Department of Agriculture between September 1939 and December 31, 1946, totaled 434 million dollars. Subsidies were paid directly to primary producers in lieu of price increases for their products and to manufacturers, or dealers, to reduce prices or to prevent prices of goods farmers purchased from rising.

The fundamental purpose of the subsidy program during the war period was to insulate prices, and particularly the cost of living, from rising costs. It was also used to provide additional incentive for essential production. The actual use of subsidies developed only as circumstances of the stabilization program required.

The paying of subsidies to agriculture by the Government from public funds is not a new policy in Canada. The wartime subsidy program, however, did high-light the technique of subsidy payments.

The extent to which public funds are used to develop agricultural resources in Canada depends upon political, economic, social, and climatic conditions. Public funds in the pre-1939 years were expended in the form of appropriations for research, for extension services, for administration, and as direct grants in the form of cash payments or free services.

The Federal Government's first type of assistance to Canadian agriculture after Confederation was for encouragement of immigration and of agricultural settlement on the prairies. As selfsufficiency tended to give way to commercial agriculture, governmental activity began to play an increasingly important role in the rural economy. As nonagricultural industry, exportation, and domestic trade were expanded, governmental attention turned to further means of encouraging an expansion of the agricultural industry. Assistance to the livestock trade was among the earliest activities. A major and consistent program has been sire assistance. It comprises grants to stallion clubs, stallion premiums, loans of purebred bulls and boars, and assistance in the purchase of boars and rams. Other programs are designed to eliminate animal diseases. Free transportation for movement of stock has been provided from time to time.

Since 1890, the Federal Government has had a varied program of assistance for Canada's dally industry. It has included subsidization of refrigeration equipment in warehouses, steamers, and producers' establishments; financial aid for information of cheese factories; and cash premiutles for quality in cheese production.

Grants to agricultural societies for fairs and exhibitions have been made annually.

Other forms of financial aid in the 1930's Recluded payments under the Prairie Farm Relfibilitation Act, the Prairie Farm Assistance Att, and feed and seed assistance. In 1931, a cash part ment of 5 cents per bushel was made on the 1941 crop to supplement the income of wheat producers on the prairies.

However, during the war years, subsidy payments to farmers assumed additional importants. They became part of the wartime stabilization policy. The general principle of the Canadian wartime subsidy program, as applied to agriculture, may be summarized as follows:

(1) Subsidies were paid to keep down the cost of living. They were paid to farmers for the purpose of enabling them to continue producing pasential commodities and at the same time hold down or reduce prices in the face of higher costs.

(2) Subsidies were paid to maintain and increase supplies of essential commodities.

Prior to 1943, both the Department of Agriculture and the Wartime Prices and Trade Board were paying subsidies to the farmer. In the early part of 1943, an agreement was reached between the Minister of Agriculture and the Minister of Finance, whereby the Department of Agriculture assumed, through the Agricultural Food Board additional responsibilities relative to the payment of subsidies to farmers insofar as they applied to the production program. The Wartime Prices and Trade Board, which was responsible for the determination and payment of all subsidies other than those paid by the Department of Agriculture established the Commodity Prices Stabilization Corporation in December 1941 to handle the operation of the over-all subsidy program. The Cor

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<sup>&</sup>lt;sup>1</sup> For a more detailed report on wartime subsidies paid by the Dominion Department of Agriculture, see Shefrin, Frank, and Cameron, Marjorie R. The Wartime Subsidy Program of the Dominion Department of Agriculture. Dominion Dept. of Agri. Ottawa. May 1947.

poration's payments were designed, in nearly all cases, to keep down farmers' costs.

The payment of subsidies may be classified in two ways: (a) Kind and (b) Commodity. Under "Kind," there are, first, cash payments made to farmers in lieu of a price increase. Such payments were made to producers of milk for human consumption, milk for manufacture, milk for cheese, butterfat for butter, vegetable canning crops, and fruits for jams and jellies. Second, cash payments were made as premiums for quality; for example, hogs and cheese. Third, cash payments were paid to supplement income; for example, the prairie farm income payment to wheat producers. Fourth, cash payments were made as incentive for shifting from the production of one product to that of another; namely, the wheat-acreage-reduction payments. And, fifth, public funds were used to absorb part of the costs of goods purchased by farmers, such as feed and fertilizer.

Under the "Commodity" classification, wartime subsidy payments, direct and indirect, were designed to maintain and expand production and facilitate desired shifts in production. They were paid by the Dominion Department of Agriculture for feeds, livestock, dairy products, and fruits and vegetables.

## Wartime Commodity Subsidies FEEDS

The rapid expansion in output of livestock and livestock products necessitated the formulation of policy to increase output of feeds and fodder. The feed-policy program consisted of: (a) Payment of feed freight transportation, including Plan A and Plan B; (b) feed-wheat drawback payments; (c) cash subsidies to encourage production of coarse grain during the period between the summer of 1941 and the end of the 1943 crop season; (d) assistance in the processing of livestock feeds; (e) fertilizer and lime subventions. A brief description is given of the major sections of this program.

Freight Assistance Policy.—The five eastern Provinces and British Columbia usually obtained feed grains from western Canada. To aid farmers in obtaining these feeds in greater quantities, and also to keep down costs of livestock production, the Dominion Government embarked on a freight-assistance policy for the following feeds: Wheat, oats, barley, rye, corn, screenings, and mill feed.

At first, the Dominion Government agreed to pay one-third of the freight charges on western grain shipped to the east. Later, provision was made for the payment by the Government of nearly all freight charges on western grains and mill feeds moved from Fort William and Port Arthur to points in eastern Canada and from points in western Canada to British Columbia. This policy of freight payments on the movement of western feed grains is to be continued until July 31, 1948. (For the average rate of assistance, see table 1.)

Coarse Grains.—Because more feed grain was required to meet the needs of an increased livestock population, the Dominion Department of Agriculture in the early war years encouraged a greater output of coarse grains. This action was hastened when Canada, in the fall of 1940, found itself with a large surplus of wheat, as a result of large crops and restricted export markets, and inadequate storage space. The Federal Government decided to curtail wheat acreage and to encourage an increase in acreage of oats and barley. To this end, the Wheat Acreage Reduction Act was passed in April 1941.

In general, payments under the act were based on the number of acres by which the farmer reduced his wheat acreage in 1941 as compared with 1940. Special provision, however, was made for the treatment of individual cases where considerable land had been broken, or an unduly large area left fallow during the 1940–41 crop year. The payment was \$2 per acre for each acre taken out of wheat and planted to coarse grain and grasses, compared with the 1940 acreage. Payments were continued in 1942 and 1943, but, owing to easing of the pressure on storage space available for wheat in Canada during the 1943–44 crop year and the better supply-demand position, the Wheat Acreage Reduction Act was not renewed.

Fertilizer Subventions.—The fertilizer policy fitted into the general program for encouraging

Table 1.—Freight assistance for feed in Canada

Province	Average rate per ton
	Canadian dollars
Ontario	4. 50
QuebecNew Brunswick	5. 35
New Brunswick	7. 50
Nova Scotia	8. 10
Prince Edward Island	8. 20
British Columbia	6.40
British Columbia	6. 40

the expansion of feed production. Farmers in the five eastern Provinces and in the Province of British Columbia who used fertilizer to increase the yields of pasture clover, alfalfa, grass meadows, field corn, spring wheat, oats, barley, mixed spring grains, and mangolds and turnips for livestock feed received payments based on 30 cents per unit of nitrogen, and 15 cents per unit each of phosphoric acid and potash, in a ton of fertilizer. This financial assistance was designed to divert the use of fertilizer to crops important to the war effort. Payments were made in 1942 and 1943. The policy was rescinded at the end of the 1943 year and in January 1944 was replaced by a transportation-assistance subsidy. Transportation costs above \$1 (Can.) per ton were paid out of Dominion funds until revocation of the act in April 1946. Between May 31, 1946, and June 30, 1947, the Department of Agriculture paid a subsidy on imported and domestic shipments of chemicals used in the manufacture of fertilizer. This subsidy had been paid previously by the Commodity Prices Stabilization Corporation.

#### LIVESTOCK

Sheep and Wool.—Because of the need for wool, steps were taken to increase sheep production. The Dominion Government assisted by paying the freight charges on the movement of female stock to be used for breeding and by lending rams to farmers who were willing to raise new flocks.

To encourage the production of a greater volume of wool, and of a quality suitable for manufacturing purposes, a bonus of 2 cents a pound on the top grades of the wool clip was paid by the Dominion Government to farmers resident in Provinces that agreed to pay a similar amount.

Hogs.—A premium of \$3 per head on grade A carcasses and \$2 per head on B-1 carcasses was paid, when such hogs were delivered for slaughter at inspected plants or approved establishments. This was to maintain the production of hogs of a quality suitable to meet domestic and British requirements until the end of the war and to encourage the channeling of such hogs through inspected plants, where their product would be available for export to the United Kingdom. In 1946, the premiums per head were reduced to \$2 on grade A and \$1 on grade B-1 carcasses.

To facilitate the movement of surplus live hogs from western to eastern Canada because of congestion at western hog-packing facilities in the winter months of 1944, the Meat Board provided financial assistance. Shippers, or processing plants, were reimbursed for the additional cost of transportation and expenses incidental thereto.

Other types of assistance included the payment of a subsidy ranging from \$0.75 to \$2.50 per 100 pounds to increase the export price of bacon during the second contract period in 1941. The payment was made to prevent the diversion of bacon shipments from overseas to United States markets, where prices were higher.

To maintain and improve the quality of bacon shipped to the United Kingdom, the Department purchased boars of superior breeding stock. These boars were disposed of for breeding purposes either by selling them at cost or by lending them to organized groups of hog producers.

#### DAIRY PRODUCTS

The Wartime Prices and Trade Board, prior to 1943, was responsible for payment of subsidies on dairy products. A subsidy was paid on fluid milk in order to encourage production, to correct price inequalities existing during the late fall of 1941, and to avoid general increases in prices of dairy products to consumers. (See table 2.)

In the case of milk used for the manufacture of concentrated milk products, payments at first were made to adjust prices, because relatively higher prices for cheese had diverted a large quantity of milk to cheese factories in the fall of 1941. Later, a subsidy was paid to maintain production.

In the summer of 1942, to stimulate increased production and avert a threatened shortage of butter during the winter of 1943 and the following season, a subsidy was paid to farmers who delivered their butterfat to creameries.

When the Agricultural Food Board, of the Department of Agriculture, took over the payment of subsidies in 1943, the program was amended. Payments on the production of milk for fluid consumption, milk for manufacture, and on butterfat were continued. Milk for cheese was added to the list at a later date. Payments on milk for fluid and concentration purposes were terminated on September 30, 1946, and on butterfat for butter and milk for cheddar cheese on April 30, 1947.

Other subsidies included the payment of a bonus that ranged from 0.6 to 1.6 cents per pound on cheese exported to the United Kingdom during the year 1941. The purpose was to encourage an increase in production.

Table 2.—Canadian subsidies payable on dairy products, specified periods.

specified periods									
Product and subsidy period	Rate of subsidy	Under direction of	Comments						
Fluid milk Dec. 22/41-Apr. 30/42	Cents per 100 pounds 30	WPTB1	Payable in areas with no price increase since August						
Sept. 1/42-Apr. 30/43	25	WPTB	1941. In areas specified by WPTB						
May 1/43-Sept. 30/43 Oct. 1/43-Apr. 30/44 May 1/44-Sept. 30/44 Oct. 1/44-Apr. 30/45 May 1/45-Sept. 30/45 Oct. 1/45-Apr. 30/46 May 1/46-Sept. 30/46	25 25 or 55 25 or 35 25 or 55 25 or 55 25 or 55 35 or 55	AFB 2 AFB AFB AFB AFB AFB	and dependent on fixed minimum producer prices paid by distributors.  In areas specified by AFB.  Do.  Do.  Do.  Do.  Do.  Do.  Do.  D						
May 1/10 Dept. 00/102222			20.						
Creamery butter  July 6/42-Dec. 20/42 Dec. 21/42-Apr. 30/43 May 1/43-Dec. 31/43	Cents per pound of butterfat 6 10 8	WPTB WPTB AFB	Seasonal increase in wbole- sale prices canceled. If used for industrial pur- poses, the subsidy to be refunded to Government.						
Jan. 1/44–Apr. 30/44 May 1/44–Apr. 30/47	10 10	AFB							
Cheddar cheese Oct. 1/43-Apr. 30/44	Cents per 100 pounds of milk 30	AFB	Dominion bonuses also paid on high-quality cbeese,3						
May 1/44-Apr. 30/46	20	AFB	on high quanty essees.						
May 1/46-Apr. 30/47	30	AFB							
Concentrated milk products									
Dec. 22/41-Apr. 30/42  Mar. 1/43-Apr. 30/43  Oct. 1/43-Apr. 30/44  May 1/44-Sept. 30/45 4  May 1/45-Sept. 30/45  May 1/45-Sept. 30/46  May 1/46-Sept. 30/46	40 25 30 15 30 15 30 23	WPTB AFB AFB AFB AFB AFB AFB AFB	On milk used in manufacture of wbole-milk products.  On milk used in manufacture of whole-milk products, and skim-milk products, provided no other subsidy has been paid on milk.						

<sup>&</sup>lt;sup>1</sup> Wartime Prices and Trade Board. <sup>2</sup> Agricultural Food Board.

cent per pound on 93 score. <sup>4</sup> A subsidy equivalent to tbe concentrated milk subsidy was paid on milk used in the production of lactose (milk sugar) for period May 1, 1944, to Sept.

The Cheese and Cheese Factory Improvement Act, passed July 1, 1939, although not a wartime subsidy, contributed to the maintenance of cheese production. This act is designed to promote the production of cheese of high quality, the amalgamation of cheese factories into larger and more economical units, and other technological improvements. It provides for a quality bonus payment of 1 cent a pound on cheese scoring 93 and 2 cents on cheese scoring 94 and above. Financial aid is given to encourage the standardizing of cheeseprocessing equipment and for other plant improvements.

#### FRUITS AND VEGETABLES

Apples.—Among agricultural products apples were the earliest to receive a subsidy or Govern-

ment price support. Measures were taken soon after the outbreak of hostilities in 1939 to maintain an industry that became a "war casualty." The apple industries in Nova Scotia and British Columbia depend on the export market, particularly that provided by the United Kingdom. The outbreak of war resulted at first in contraction and then later in the closing of the British market for Canadian apples. The Dominion Government in the fall of 1939 relieved the apple growers of the need to arrange exports under war conditions, and guaranteed manufacturers of apple products against loss on their purchase of 34 selected varieties ordinarily exported. At the same time, steps were taken to improve apple orchards. 1943, the Dominion Department of Agriculture has paid apple growers in Nova Scotia \$2 for every old tree removed. Assistance to British Columbia growers also consisted of Government purchases of apples for distribution to prairie drought victims and a guaranty against financial loss on exports.

Other Fruits.—Another group of producers' subsidies were those paid on berries for jam in 1943, 1944, and 1945. Earlier action under the Wartime Prices and Trade Board was limited to strawberries in British Columbia. The Agricultural Food Board in 1943 took over the payment of growers' subsidies on berries used in pectin and compound jams. These subsidies were added to the price paid by jam manufacturers buying these fruits for processing into jam. From June 6, 1944, they also covered raspberries bought for. commercial canning. Ceiling prices were adjusted in 1945, and subsidies to growers were discontinued. (See table 3.)

Table 3.—Canadian subsidy payments on berries for jam,

Product	Brit	ish Colu	mbia	Ontario				
Froduct	1943	1944	1945	1943	1944_	1945		
Strawberries Raspberries Loganberries Boysenberries Gooseberries Currants	Cents per pound 6 3 3 3 3	Cents per, pound 6 3 3 3 3	Cents per pound 6 3 3 3 3 3	Cents per pound 3 3 3 3	Cents per pound 13.5 3 3	Cents per pound 3 3 3 3		

<sup>1</sup> Hulls off; with bulls on, 3 cents.

Canning Crops.—Subsidies were paid to producers on the 1942 crop of tomatoes, corn, peas,

<sup>3</sup> Dominion bonus on quality cheese—2 cents per pound on 94 score and 1

and beans, by the Commodity Prices Stabilization Corporation. Payments were made on 1943, 1944, and 1945 crops by the Agricultural Food Board, of the Dominion Department of Agriculture. Higher costs, particularly for labor, resulted in increased rates. The subsidies were paid through canners to producers, who received the subsidies in addition to the contract price for the crop. These per ton subsidies terminated at the end of the 1945 crop year. (See table 4.)

Table 4.—Canadian subsidies on canning crops, 1942-45

Product	1942	1943	1944	1945
TomatoesCorn	Dollars per ton 1.00 2.00 7.50 1.50 5.00	Dollars per ton 3.00 4.00 10.00 2.00 7.50	Dollars per ton 6.00 4.00 10.00 2.00 7.50	Dollars per ton 6.00 4.00 10.00 2.00 7.50

Beans.—To stimulate the production of dried beans for domestic needs, under the existing price ceiling, and for export requirements, the Wartime Prices and Trade Board paid a subsidy to growers in 1943 and 1944. The Agricultural Food Board paid it on the 1945 bean crop.

#### THE PRAIRIE FARM INCOME PAYMENTS SCHEME

This was an emergency measure designed to help low-income wheat farmers. It operated only with respect to the 1941–42 crop year. Direct payments were made to farmers growing spring wheat in western Canada to provide sufficient income to maintain them on the land in the face of low prices and low crop yields. The cultivated acreage of each producer was taken as the most equitable basis upon which to distribute cash payments. These amounted to 75 cents per acre on half the cultivated acreage of the farm. The maximum amount paid out to any farmer was not to exceed \$150.

There were other types of subsidy payments which can only be mentioned briefly. Some seed growers received transportation assistance. The Department assisted processors of flax fiber to acquire machinery. But most of these subsidies were only for short periods. (See table 5.)

Table 5.—Wartime subsidies 1 paid out by the Dominion Department of Agriculture, calendar years 1939-46

Item	1939	1940	1941	1942	1943	1944	1945	1946 ²
Fluid milk					1,000 dollars 4,968 16,028	1,000 dollars 12,818 23,446	1,000 dollars 12, 672 23, 689	1,000 dollars 13,993 21,655
Milk for cheddar cheese					465 800	1, 986 4, 331	1, 882 4, 270	2, 147 4, 902
Cheese: Bonus on quality	46	1, 055 81	1, 495 182 1, 951	1, 732 203	1, 386 73	1, 592 88	1, 664	1, 257 188
Hog premiums			2 281			14, 071 12	10, 737 1	5, 852
Wool- Egg-export subsidy				38	15 154	66	89	144
Feed freight assistance			2,060	9, 831	15, 941	14, 566	16, 855 941	18, 968
Plan B. Feed-wheat drawback Subsidy to processors of alfalfa meal				334	1, 217 2, 233 38 26	7, 700 52	6, 802 6	1, 464 6, 182
Sugar-beet pulp. Wheat-acreage reduction Fertilizer subventions and freight allowance. Bulk purchasing of fertilizer chemicals.					31, 016 860	8, 981 413	822 417	112 431 19
Lime for soil-amendment purposes	2, 491	1,750	1,718	2, 313	39 1, 841 956	271 1, 242 2, 549	230 92 2, 115	420 855
White and vellow-eve beans					359	473	684	101
Dominion seed program		11			238	29	405 58	270
Freight assistance on alfalfa seed Prairie farm income Assistance on purchase of seed-cleaning equipment— British Columbia Rebate to purchasers of Canadian flax-seutching ma-			863	18, 034	84	11 1	19	39
cninery					3			
Purchase of dehydration machinery					109	18		
Total	3, 136	2, 897	32, 969	57, 167	78, 849	95, 600	84, 631	78, 999

<sup>&</sup>lt;sup>1</sup> Canadian currency. The Canadian dollar, according to the average annual official rate of exchange, was equivalent to 90.9 U. S. cents during 1939-45; on July 8, 1946, it was officially set at 100 U. S. cents.

<sup>2</sup> Preliminary.

## Commodity Prices Stabilization Corporation

The subsidy program of the Commodity Prices Stabilization Corporation was also tied in closely with the price-stabilization program. The Corporation, after the establishment of the Agricultural Food Board, made no direct cash payments to farmers.

Payments made by the Corporation were in the form of subsidies to reduce freight charges and the differential between import and domestic prices. Another measure designed to reduce the cost of imported articles, which involved a loss in national revenue but did not involve cash expenditures, was the reduction of tariff rates on many imported items.

Subsidies were paid on agricultural machinery, binder twine, rope, bags and bagging, feed, fertilizer, harness and saddlery, lumber, pesticides, petroleum, woodenware, and bees. Other measures were designed to maintain or enlarge markets for farm products. Beef cattle were purchased at export market prices and resold at the domestic ceiling price. Butter was purchased to maintain domestic prices. The movement of beef in 1943 from areas of surplus production in the west to those of heavier consumption in eastern Canada was facilitated by the Corporation's reimbursing western shippers to the extent that transportation charges per pound exceeded the difference between the maximum price in the zone of shipment and the maximum price in the zone of destination. Subsidies were paid also to divert shipments of creamery butter to areas of low production.

Payments by the Corporation directly affecting agriculture in the period between December 1, 1941, and December 31, 1946, are estimated to be \$31,000,000. Subsidies on imported goods for farm use totaled nearly \$6,000,000; subsidies on domestic goods, including cash payments for specific products, \$22,000,000; losses on commodity trading, \$750,000; and financial assistance, through the Wartime Food Corporation and the Canadian Wool Board Limited, amounted to \$2,500,000.

#### Postwar Government Policy

The policy of the Canadian Government in the early phase of the postwar period is to facilitate an orderly readjustment of the Canadian economy and to prevent the inflationary forces from impeding the attainment of a sustained and high level of peacetime activity.2 Prices and related controls are being relaxed. Existing subsidies are being gradually reduced and eliminated. Each reduction, or removal, is considered in relation to the general developments in the Canadian price level and in relation to the particular consequences that would result from such reduction, or removal, of the subsidy under review. During 1946 and the first quarter of 1947, domestic agricultural-subsidy payments on jams and jellies, fluid milk, evaporated milk, and fertilizers were Most of the subsidies applicable to stopped. agriculture, paid by the Commodity Prices Stabilization Corporation, domestic and import, have been terminated.

While the general trend is in the direction of subsidy removal, a number of new subsidies were announced at the end of 1946 and during the first quarter of 1947. The Agricultural Prices Support Board subsidized the price of potatoes for starch from the 1946 crop in Prince Edward Island and New Brunswick. New subsidies were announced in the Canadian House of Commons on March 17, 1947. Because of an increase in the prices of barley and oats, and the continuation for the time being of the price ceiling on animal products, payments of 10 cents per bushel for oats, and 25 cents per bushel for barley, are made within the same conditions as the 25-cent drawback on wheat purchased for feeding. The payment of these subsidies will have the effect of leaving the cost of these feed grains to feeders near the levels of March 15, 1947. This payment is to be continued as announced on July 31, 1947.

The use of public funds to aid in the development and use of agricultural resources is being continued. Prewar activities and services are being extended. Exhibitions and fairs are functioning again. Consideration is being given to extending the Prairie Farm Rehabilitation program into a national conservation program. The Canadian Farm Loan Board, in the spring of 1945, reduced the rate of interest on long-term credit from 5 percent to 4.5 percent per annum on first mortgages. To make more short- and intermediate-term credit available, the Dominion Govern-

<sup>&</sup>lt;sup>2</sup> The Minister of Finance on January 11, 1947, in his Statement on Price Control, stated "the goal of the government's stabilization policy has always been and still is to preserve orderly conditions with a view to cutting off the disrupting peak in post-war prices and to avoiding, or at least greatly lessening the drop which inevitably follows."

ment in 1944 passed the Farm Improvements Loan Act. Chartered banks are guaranteed against loss up to 10 percent of the amount loaned by them under the act (a maximum of \$250,000,000).

Under the Prairie Farm Assistance Act, which was passed in 1939, farmers who suffer low yields because of uncontrollable factors, such as weather, are assisted. Direct money payments are made by the Dominion Department of Agriculture to farmers experiencing low crop yields in the spring-wheat area of Canada. Farmers, however, contribute a payment of 1 percent of the purchase price on all grains marketed in Canada.

Assistance in land settlement is being given to veterans of World War II. In addition to a loan, the Government absorbs about 24 percent of the cost of the land and permanent improvements and makes a gift of the chattels to the veteran.

New activities in the postwar period include a commitment on the part of the Dominion Government to support farm prices. The Agricultural Prices Support Act of 1944 states:

In prescribing prices the Board shall endeavour to ensure adequate and stable returns for agriculture by promoting orderly adjustment from war to peace conditions and shall endeavour to secure a fair relationship between the returns from agriculture and those from other occupations.

The methods by which the Agricultural Prices Support Board may support agricultural prices include: (1) Buying and selling any agricultural product, except wheat, and (2) making deficiency payments.

Other activities are in the direction of export trade. One of the first steps taken by the Canadian Parliament to assure, to some extent, a maintenance of export trade, agricultural and non-agricultural, was the passing of the Export Credit Act, 1944. As implied in the title, there are two features to this Act—one providing insurance to persons engaged in export trade against risk or loss in such trade; the other, the extension of credit to facilitate export operations.

Measures directly affecting the social welfare of the farmers include the Family Allowance Act and the National Housing Act. The Family Allowance Act, 1944, the purpose of which is to promote the well-being of children, allows for substantial payments in respect of urban and rural children up to 16 years of age. These payments began in July 1945. The National Housing Act contains a special section to provide aid in financing the construction of farm homes.

In summation, subsidy payments and governmental assistance in Canada have been and are being used to deal with a variety of conditions which affect the economic well-being of the agricultural industry and its farmers. Many agricultural aids also contribute to objectives of more than strictly agricultural interest.

## Landlord vs. Tenant in Japan

by W. I. LADEJINSKY\*

The following notes, as well as those appearing in the June issue of this publication, were made in Japan on field trips undertaken by the author in order to gain first-hand information on the attitude of the tenants and landlords toward the land reform then under consideration. They do not aim to give the reader the whys and wherefores of that reform. The belief is, however, that one may glean from them some of the conditions that called for the enactment of the program, as well as some of the problems encountered in devising a program that would improve the economic and social position of the majority of Japanese farmers.

#### Hokkaido Prefecture

Hokkaido Prefecture comprises the northernmost and second largest island of Japan, having a north-south extent of 260 miles and east-west

\*Office of Foreign Agricultural Relations.

extent of 280 miles, the total area being 34,282 square miles. Hokkaido comprises 23 percent of the area of Japan and is comparable in size to the State of Maine. The relief pattern of Hokkaido does not greatly differ from that of the remainder of Japan. From the mountains in the interior, spurs extend across the island. Between the spurs are lowlands and strips of level land bordering water courses. These lowlands, which comprise Hokkaido's agricultural acreage, represent 15 percent of the total area of the island.

Agriculturally Hokkaido differs greatly from other parts of Japan. Practically all crops are spring-sown, the fields remaining fallow in the winter. The short frost-free season (3 to 3.5 months) limits crops to one per year; uplands predominate in a proportion of 3.5 to 1; the aver-

age size per farm is four times that on the other islands; the degree of fragmentation of landholdings is less pronounced than in the other parts of Japan; agricultural practices are less intensive than in old Japan; animal husbandry is more common; and farm equipment is more nearly adequate and more generally used.

In the vital aspect of landownership, Hokkaido does not differ from other parts of Japan. Although a region of recent pioneer settlement, tenancy in Hokkaido is even more widespread than in Old Japan. Of the 195,000 households, 43 percent are made up of tenants, 21 percent of part tenants or part owners, and 36 percent are independent owners. The respective figures for all Japan are 28, 40, and 32 percent. The predominance of farmers who have no land at all is an outstanding feature of Hokkaido's agricultural economy. The efforts of the Japanese Government to reduce tenancy in Hokkaido were no more successful than in Old Japan. Even though fairly large numbers of tenants became owners, within the same period of time an equally large number of farm owners were reduced to the status of tenants.

Before starting on the field trip through Hokkaido, this observer interviewed Mr. Fukuoka, Chief of the Agricultural Division of the Hokkaido Prefectural Office.

Mr. Fukuoka stated that, from an economic, social, and cultural point of view, the significance of the impending land reform cannot be overestimated. This is especially true in the case of Hokkaido, which, with the sole exception of the Osaka Prefecture, is the most tenant-ridden Prefecture of Japan. Mr. Fukuoka places much faith in the coming land reform as a means of eradicating tenancy through greater diffusion of landownership.

The total area of land subject to transfer under the provisions of the Land Reform Bill was estimated by Mr. Fukuoka as follows:

* Land ownership	Paddy fields	Dry fields	Total	Owners
	1,000 cho 1	1,000 cho 1	1,000 cho 1	Number
Absentee landlords	31	86	117	10, 400
Noncultivating resident				,
landlords	23	48	71	20, 200
Cultivating resident land-				-0, -00
$lords_{}$	11	33	44	18, 500
Total		1.05		40.100
Total	65	167	232	49, 100

<sup>1 1</sup> cho=2.45 acres.

If this estimate is correct, 72 percent of all the tenanted land of Hokkaido, or 82 percent of the tenanted paddy and 95 percent of the tenanted upland, would be purchased by the Government for resale to the tenants.

To Mr. Fukuoka, landownership is the surest way of raising the productivity of the soil. Investigation of the Agricultural Section of the Prefectural government showed an increase in yield, as between fields of independent and tenant farmers, of about 23 percent. While not questioning the results of this particular survey, inquiries in other parts of the country did not reveal so wide a difference in yields.

Hokkaido furnishes a good example of how complicated the pricing of land under the Land Reform Bill is going to be. Taking into consideration the over-all criterion that a tan of paddy or upland must not exceed in price 40 or 48 times the registered rental value, respectively, the agricultural section of this Prefecture has tentatively fixed the following prices: Most common prices of paddy will range from \\$190 to \\$320 and, in rare cases, the price will be as high as ₹520; the respective prices for upland will be ₹50, ₹160, and ₹670. There will also be instances of exceptionally poor paddy which will be priced at ₹28 and upland at ₹12. Paddy land prices at ₹190 will carry a subsidy of ¥53, and that priced at \\$320 will carry a subsidy of \\$88. The subsidy for upland will amount to ₹14 (price ₹50) and ₹46 (price \forall 160). These prices, in Mr. Fukuoka's opinion, are quite reasonable, but in view of the relatively poorer soils and unfavorable climatic conditions prevailing in Hokkaido, the Government must always be prepared to reduce drastically, or cancel altogether, annual installments in years of poor crops.

Mr. Fukuoka stressed the point that the Government's obligation to the tenants is not discharged once they become owners. Ownership of a small holding, even when unencumbered with financial obligations, does not necessarily insure a fair standard of living. The more so in the case of a new owner who has annual payments to meet. The Government must not abandon him but be ready to come to his aid. Mr. Fukuoka felt that the legislaion is not explicit on this point, and that this shortcoming should be corrected if the land-reform program is to become more than

<sup>11</sup> tan=1/10 of a cho or 1/4 of an acre.

a means of shifting property rights from one group of farmers to another. He welcomed the provision of the Land Reform that the annual installments for the land, plus taxes and other imposts, shall not exceed one-third the crop value.

#### VISIT TO KURISAWA VILLAGE

This village lies in the heart of Huromui Plain, where paddy and upland are well balanced. The area under paddy is 3,098 cho and that under upland rice is 3,700 cho.

Unlike so many of the villages in Old Japan during and since the war, the population of Kurisawa has remained unchanged; it has a total of 1,424 farm families, and of these only 361 are classified as small holders; 197 are part tenants, and 836 are full tenants. In addition, the village has 30 resident landlords and 100 absentee landlords. The largest resident landlord owns 50 che of land, and absentee and resident landlords together own approximately 70 percent of all the land. As in the case in other parts of Japan, practically no tenant rents land from one landlord only. One of the tenants present stated that he rents his 4 cho from five landlords.

The average rental in the years past was onethird the crop. Although lower than the average rental for all Japan, the rice yields in Hokkaido are approximately 25 percent lower than in Old Japan. In this village contracts between landlords and tenants were practically all in writing and for 5-year periods. The sale of the cultivation right by one tenant to another is widespread, and before the war prices ranged from \\$50 to \\$200 per tan. Landlords raised no objection to this practice, forbidden by the contract, so long as the tenant paid the rent. The price depends upon the rental—the lower the rental, the higher the price of the cultivation right. The substitution of rental in kind for cash and reduction in rent are particularly welcome in this village. In the past the payment of rent left the tenants with no rice from early spring till the new harvest. They were compelled to borrow rice by mortgaging the new crop. The auticipated changes will go a long way toward protecting their own food supply.

The average holding per family is 5 cho, which is 4 to 5 times larger than the average holding in Old Japan. Yet at a meeting the assembled 16 tenants, 2 part owners, and 5 independent owners emphasized the smallness of their holdings. They expressed the need for holdings averaging 4 cho of paddy and 8 cho of upland.

With two exceptions, the tenants were in favor of buying land, but all seemed to have misgivings about their status as owners, should agricultural prices decline. Without continuous Government protection the status of a new owner seemed to them very uncertain at best.

Comment on the official price of land set by the Government was far from enlightening. No two farmers could agree what the price should be, and the area of agreement was restricted to the following: That a given price of land means one thing to such a tenant who has ready cash and quite another thing to a tenant who paid for his cultivation right <sup>2</sup> and must borrow money to pay for the land.

If the criterion of a fair price of land is whether or not one has the money to pay the price, then the tenants of this village should have no difficulty in making at least a very substantial payment for the land. The tenants are debt-free now, although before the war the average indebtedness was \forall 1100 per family, and their bank savings, not counting an unknown amount of cash, were estimated at between \forall 4,000 and \forall 5,000. One tenant suggested that the tenants should be in a position to pay one-half the purchase price down.

The farmers present at the meeting were aware of the fact that a Land Reform Bill was in preparation, but they had the haziest of notions as to the real nature of the bill and its principal provisions. It was clear that they would have viewed the prospect of landownership more enthusiastically if they had known that the Land Reform Program was designed for their benefit. The need of telling the tenants what this bill is, and what it is not, was all too clear.

#### VISIT TO KITAMI CITY

The city of Kitami is located in the northeastern coastal part of Hokkaido in a region of mixed agriculture. The rice crop here plays but a minor role; vastly more important are the uplands on which the farmers raise feedstuffs for their numerous cattle and horses.

In the city hall there were assembled four landlords, three small holders, one part tenant, and nine tenants. They in turn represented some 2,112 farm families, made up of 1,036 independent farmers, 453 part tenants, and 623 tenants. Taken together, they cultivated 1,210 cho of paddy and 7,877 cho of upland, or an average of 4.3 cho per

<sup>&</sup>lt;sup>2</sup> See p. 84 of June issue of Foreign Agriculture.

family. The discussion revealed that this average does not reflect at all the acreage cultivated by a given family. One tenant volunteered the information that he cultivated only 1.5 cho, relying for his livelihood on lumbering; another tenant rents 13 cho, all upland; and all farmed with their own labor, both human and animal.

A farmer in this region who depends upon agriculture for his main source of income must cultivate at least 10 cho. The yields are generally low, and crops are very uncertain because of poor climatic conditions. A crop failure every third year or so is normal. The situation in Kitami was another illustration of the fairness of the provision that permits an owner cultivator to retain 3 cho in Old Japan and 12 cho in Hokkaido.

Landlords with 30 to 50 cho are not rare in this locality; the four landlords present owned 60, 30, 25, and 20 cho, respectively. Rent for paddy used to be one-third the crop and for upland, 3 to 6 yen per tan. The tenants considered the rent in both instances fair. Most contracts are in writing, and the duration of the lease is 10 years. There have been no cases of serious disputes until recently.

During the war many a small holder rented out land when members of his family were drafted into the army. Now that their sons have returned, they wish to have the land back. It is very likely that the Land Commission will help returned soldiers. The landlords, on the other hand, will try to salvage as much as possible by setting up their own sons in farming. Hence, their insistence upon the return of some of the tenanted land.

Without exception, the tenants expressed themselves in favor of buying land. This observer called their attention to the fact that under the Reform the status of tenants will be much improved. But they wished to be their own masters, no matter how liberal the terms of tenancy.

The landlords were against the Reform because, in their view, it compels them to sell land at low prices and prevents their sons from becoming owner cultivators. They criticized the provision of the Land Reform Law that considers the family, not the number of persons in the family, as the unit upon which the permissible retention of land is based. One landlord was willing to accept the new program if he were permitted to retain 10 cho for each of his sons. If an end must come to landlordism, they will bow to the inevitable, but why not give their sons the chance of becoming small holders?

There was the expected sharp disagreement between the assembled landlords and tenants on the price of land. Before the war the average price of a tan of paddy or upland ranged between \(\frac{4250}{250}\) to \(\frac{4300}{350}\). Everything considered, the official price should be at least four times the prewar average. Any other price, and the fixed price for the locality will not exceed \(\frac{4500}{500}\), is confiscation, the spokesman of the landlords pointed out. The tenants, on the other hand, refrained from stating a price, but insisted that the cheaper the better and that it was the responsibility of the Government to raise prices of agricultural products to a point that would enable them to buy the land quickly.

Before the war the average indebtedness was \$1,300 per family. A considerable amount has since been liquidated, but last year's poor crops put many farmers in debt again. The belief is, though, that with the harvesting of the current excellent crop debts will be paid off. Those farmers who have horses are rated among the best off; temporarily at least animals provide a better index of an inflationary prosperity than the area of land a man owns. The price of a good horse may be as high as \$70,000; an average horse is priced at from \$10,000 to \$15,000.

There was no disagreement among those present on the need of raising the official prices of agricultural products. They thought the price of rice should be set at \\$1,500 per koku as against the official price of \\$550. The farmers believed that the failure to raise prices did not rest with the Japanese Government; the widespread rumor was that the Japanese Government was willing to meet. the farmer's demands but that the Occupation Forces had raised strenuous objections to such a course of action. Their only salvation lies in the black market, or, barring that, in turning the paddy fields into upland. Since the conversion of one type of field into the other is a long-drawn-out process (about 4 years), the threat is an idle one, especially in sections where rice cultivation is of relatively minor importance.

#### VISIT TO HIGASHI-KAGURA VILLAGE

Twenty years ago this village was part of the Imperial Estate, since sold to the farmers in order to put an end to the often-recurring disputes between the Estate and the tenants. The total cultivated area of the village is 10,000 cho, of which 7,000 cho came from the Imperial Estate. The land was sold in 5-cho units and on terms that en-

abled the tenants to acquire the land without incurring any debts. The Higashi-Kagura Village became tenantless.

In the course of the two decades following the sale many owners could not maintain their status, and they became tenants once again. At present the village consists of 1,500 families, 30 percent of whom are full tenants. The tenants' explanation for the loss of the land they once owned is that a small holder operates on so narrow a margin that he must be protected by some one stronger than himself. One poor crop would put a farmer in debt. The next step was foreclosure and the loss of the land. The financial aid extended to the tenants by the Imperial Estate via rent reductions and free timber was gone with the sale of the land.

By the way, the widespread notion that the Emperor of Japan is far and away the country's premier landlord is not correct. The Imperial Estate has a total of 605 cho of paddy fields, of which 540 cho are in Old Japan and 65 cho in Hokkaido. The Hommas of Yamagata own three times as much paddy. The upland belonging to the Household is made up of 4,328 cho in Old Japan and 3,570 cho in Hokkaido, a total of 7,898 cho. There is a private corporation, the Onon-Kogyo Co. in Hokkaido, that possesses a larger acreage; namely, 11,100 cho. The upland of the Imperial Household is rather poor, the best having been sold a quarter of a century ago. The Imperial Household seemed to be the largest landlord of Japan because of the immense forest holdings of 3.2 million acres, containing 8 percent of the total volume of Japan's standing timber. Under the new Constitution practically all the land and forest owned by the Imperial Household will become the property of the state. A Civil List will provide for the maintenance of the Household.

The 500 tenants cultivate an average of 4 cho per family, and most of it is rented from absentee landlords. The largest single owner, with 80 cho, is not an absentee landlord; whether the landlord is resident or not, large or small, the rent is the same—one-third the crop for paddy and a stated cash rental for upland.

In the days when the land was owned by the Imperial Estate there were many disputes, because the tenants insisted on buying and selling the cultivation right. Since the end of the war attempts on the part of the landlords to retrieve land were few, and still fewer were the cases where they succeeded in getting the land back. A very

efficient Land Committee, organized years ago and consisting of three landlords, three tenants, and three small holders, is credited with the protection of the tenants.

The peasants were not familiar with the basic principles of the Reform and hoped for the best, but the landlords knew and feared the worst. On one point the two were in agreement; that the returned soldiers who had rented out their lands because of shortage of labor should receive their land back. The Land Committee of the village has registered 16 such cases, and they will probably decide in favor of the returned soldiers.

The tenants who had once tasted ownership were eager to do so again. As owners of the land they would not be concerned with any future change in tenancy practices, and, as one tenant put it, as an owner of land he would be "a complete person," taking part in the affairs of his community as one among equals.

A landlord spoke out against fixed Government land prices in general, and particularly against the prices already set in Hokkaido, ranging from ¥190 to ¥320 per tan of paddy and ₹50 to ¥60 per tan of upland. Only in rare cases will the price of paddy reach ¥520 and that of upland ₹670. In his opinion a tan of paddy or upland should be priced at more than ¥700. The tenants want land at low prices, but one of them also stated that the price should be reasonably high to insure compliance by the landlords.

The farmers are practically debt free now; their prewar indebtedness ranged from \(\frac{2}{3}\),000 to \(\frac{2}{3}\)4,000. Yet the tenants claimed that they were in no position to make a fair initial payment unless official agricultural prices were at least doubled. The price of rice especially should be raised to \(\frac{2}{3}\)1,200 and possibly \(\frac{2}{3}\)1,500 per koku, and now that the Government has no army to maintain, the farmers should be supplied with farm equipment free of charge, fertilizers at fixed prices, and horses for those who need them, since few are in a position to pay the prevailing market price of \(\frac{2}{3}\)3,000 per horse.

#### VISIT TO NAKASHIBETSU VILLAGE

This is a typical, non-rice-growing village, first settled 45 years ago. Of the original settlers there is not a trace; they had attempted to carry over into different climatic and soil conditions the methods to which they had been accustomed in Niigata Prefecture, and failed. They were too

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poor to acquire cattle, which is indispensable in this district. The second wave of settlers was better prepared. The village has 1,700 families, having, on an average, from 15 to 20 cho of land. The larger problem is how to add to their holdings; they need about 30 cho per family. Nakashibetsu is more fortunate than other frontier villages; there are practically no tenants in the village, and only 200 part tenants who own more land than they rent, and the rental is only \\$1.50 per tan.

The land was given to them by the Government on the condition that they reclaim it. Forty percent of the acreage is devoted to the raising of such crops as potatoes, buckwheat, corn, oats, and other feedstuffs, and the remainder is used for grazing. Each farm family has two horses and from three to four cows. Most of their income comes from animal husbandry.

Their main concern at the moment was the food problem, that is, the difficulty of getting rice. The climate and soil do not permit rice growing, and the ration is too small to meet their accustomed needs. The black market is the only way out. They do not go hungry, but rice is a staple food with them as with the average Japanese. They are being compelled to change their food habits, at least for the time being, by relying more on dairy products and meat.

Here as elsewhere, the farmers were not familiar with the provisions of the reform program. This observer touched upon the basic ones, and strong opposition was voiced to the provision that permits an owner-cultivator in Hokkaido to retain 12 cho, and more only under special conditions. Thirty cho, they felt, should be the limit, and not only in their district. The social composition of this village may explain why fewer but larger farms are preferred to more and smaller ones. But in the main, the farm owners and tenants were more interested in the trend of livestock prices than in agrarian reform. They were much concerned about advice on whether to sell or hold out for higher prices—advice which this observer was not qualified to give them.

#### VISIT TO NEMURO TOWN

This town was founded in 1900 by settlers from Gifu, Tayama, and Aichi Prefectures. They were given the land they reclaimed cost free, and they bought already-reclaimed land in addition. The land still unoccupied calls for expensive drainage,

which the farmers hope the Government will undertake.

In the early days of this village the settlers owned their own land, but in time many lost their holdings. Nemuro is now as tenant-ridden as some of the villages in Old Japan. The number of families is 1,482; 531 tenants, 385 part owners and part tenants, 466 independent farmers, and 100 landlords, some of whom cultivate from 20 to 25 cho. The largest resident landlord owns 250 cho, and the largest absentee (of whom there are 73) owns 1,500 cho. Together, the landlords own 50 percent of the 18,000 cho cultivated by the farmers, most of which is upland. The principal crops are wheat, oats, soybeans, potatoes, and flax.

How much land does a farmer need in this district? The consensus of opinion was from 15 to 20 cho. A peasant proprietor cultivates an average of 15 cho, and so does a part owner. Even a tenant cultivates an average of 13 cho. The labor, both human and animal, is mainly self-supplied. The 3,500 horses the village has, and an assorted variety of farm equipment, play an important role in this respect. In addition, the villagers have 500 cows and 1,500 sheep. A tenant who rents 15 cho stated that he pays his rent in cash at a rate of \\$3.30 per tan. Cash rentals were introduced into the village in 1941; before, rent was about 30 percent of the crop.

The agreements are oral and renewable every 5 years. Eviction is rare, chiefly because the farmers enjoy the cultivation right, a privilege not recognized by law but well-recognized by custom.

Since the end of the war many a landlord has argued for the return of some land. The number of cases and area involved could not be ascertained, because not all cases come up before the Land Committee for settlement. In 20 cases settled by the Committee, the tenants had to return some of the land. The Committee consists of 3 landlords, 3 tenants, 3 independent farmers, 1 "man of experience," and the village headman as chairman. A tenant blamed the composition of the Committee for the decisions, because the independent farmers always side with the landlords, and the "man of experience" is the village vice-headman and himself a small landlord.

In Nemuro Town this observer heard expressions of strong opposition to the land-reform program. Landlord after landlord emphasized that they were pioneers who acquired their land through toil, thrift, and efficient management. A

landlord of 250 cho related how he came to the village 45 years ago, reclaimed the first 12 cho and has been adding to the original 12 cho ever since. He set an example all good farmers should follow, and now he is to be deprived of his land. The Government seemed bent on confiscating the land via the fixed price, on the one hand, and taxation on the other. It might at least leave him an acreage as large as that of any other substantial farmer. A landlord of 130 cho expressed himself in the same vein. The tenants remember the unhappy experience of owning land and losing it, and wish to make sure that the Government will not abandon the new owners until they are firmly on their feet.

A landlord was in favor of dealing with the tenant directly rather than with the Government. He made no secret of his purpose to secure a more "reasonable" price for his land.

#### GENERAL CONCLUSIONS

Hokkaido is one of the regions of Japan where the need for a change in the existing landlordtenant relationship is keenly felt. The tenants are singularly misinformed about the main provisions of the program. The efforts of the Ministry of Agriculture and Forestry to correct this will contribute to a better understanding of the Land Reform Law and its effective application.

Landlord-tenant relations in 1946 were almost as strained in Hokkaido as in other parts of Japan. Disputes had increased from 109 in 1942 to nearly 3,000. The disputes stem from the demand on the part of some of the landlords for the return of part of the tenanted land. Change of rental from kind to cash, which landlords contend deprives them of all real income; the tight food situation and the desire to raise their own food; sale of land to city people for food production; return of the soldiers; the impending Land Reform with emphasis on land only for those who cultivate it are some of the reasons. Despite the many disputes, the area involved amounted to only 1,000 cho.

Many farmer owners cultivate more than 12 cho without recourse to hired labor. This fact, observed on the trip through Hokkaido, empha-

sized the soundness of the clause in the Land Reform Law that permits an owner cultivator to retain more than 12 cho in certain cases. Otherwise, the efficiency of many a holding would have been impaired.

In Hokkaido one becomes aware of how insecure small ownership is. Within one generation many small owners lost their land. They therefore have misgivings as to landownership unless the Government will help them maintain their new status.

The impression on this observer was, too, that the tenants of Hokkaido will purchase land more readily than the tenants of Old Japan. The idea of the owner as the "complete" man was stressed by a number of tenants. In such a region as Hokkaido, where evidences of the early pioneering days still abound, individual ownership of land cannot be gainsaid. It is the badge of economic and social independence, and the tenants of Hokkaido, who are far less tradition-conscious than the tenants of Old Japan, will make an effort to acquire land, given the opportunity.

The tenants of Hokkaido are money-prosperous. Their rents are nominal; their old debts have been liquidated for the most part, and their savings are fairly large. Substantial initial payments for land may be expected.

Hokkaido's agriculture lends itself to further intensification, given draft power and farm equipment. The limiting factor even here is land. Already some of the poorer marginal lands have been put to use. What remains is land to be reclaimed, but this holds less promise than does the land of earlier settlement, because it is less accessible to markets, has less favorable climatic conditions, and has less varied and profitable crop possibilities.

#### Fukuoka Prefecture

In going from Hokkaido to Fukuoka Prefecture, on Kyushu, one leaves the more recently developed part of Japan and enters one of the oldest-parts of what has been referred to as Old Japan. Fukuoka exemplifies to a rather extreme degree a basic feature of Japan's agricultural economy—too many farmers and too little land. The Prefec-

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ture also has too many landlords and too many tenants. For this reason, the area available for transfer under the provisions of the Reform will fall short of satisfying the tenant's demands.

#### VISIT TO FUNAKOSHI VILLAGE

The village of Funakoshi is a case in point; it was very much astir over the Reform. There will be little land for sale, however; perhaps only 57 cho under the purchase provision of the law. If the figures furnished by the village headman are correct, then 40 resident landlords and an unknown number of absentees own not more than 85 cho, and 240 full tenants cultivate a total of 87 cho, or barely 0.3 cho per tenant family! Fragmentation is extreme; one landlord rents 4.5 cho, or 11 acres, of land to 18 tenants. This is a good illustration of "molecular" landlordism in Japan, as well as of the fact that a tenant must find some subsidiary occupation in order to eke out a very frugal living.

The importance of the local land commissions, about to be elected, cannot be overestimated. It was gratifying to note, therefore, that these will not be new and untried institutions as far as this village is concerned. The existing commissions are not popularly elected, but they are composed of tenants, landlords, and independent owners, and they have been deliberating together upon important cases affecting the community. The experience thus gained should stand the newly elected commissions in good stead.

Before the war rentals were as high as 75 percent of the crop, but no one seemed to have had a clear idea concerning this year's payment of rent beyond the fact that payments will be in cash. The Prefectural Office was rather late in sending out detailed instructions. The tenants, as always, knew less than the landlords about the provisions of the law, but had a good idea what the official price of land was going to be.

The discussion of the Reform Law took place in the presence of 16 tenants, 8 landlords, and 8 owner operators. No landlord attacked the law directly, but one of them expressed himself vigorously against the "privileged" position of the tenants. He thought the demobilized soldiers should have prior claim on any land; consideration should be given to city people in general, and unemployed in particular, who wish to cultivate land; finally, if an absentee wishes to return to the village, he should have the right to cultivate. Another landlord stated that he was in sympathy with land

reform, but the change was too sudden for him, and, besides, the price of land was too low.

Landlords who have little land to sell were not bitterly antagonistic to the reform; they were concerned mainly with the "unfair" provision of cash rent. One of them illustrated the point as follows: He will receive \(\frac{475}{75}\) per tan as rental, or an equivalent of his price per koku of rice. Yet he in turn must buy rice for his own consumption at \(\frac{4450}{450}\) per koku. A tenant was in favor of paying part of his rental in rice to ease the difficult situation of the landlord. That the difficult rice situation has much to do with the negative attitude of the landlords toward cash rentals and toward the law in general was made clear by one of the landlords who said he would accept the Land Reform Law if it left him with enough rice for his family.

The tenants were concerned with finding land for purchase. Hence, the objection on the part of some to allowing the resident landlords to retain 1 cho of tenanted land. While ignorant of the principal provisions, they are quite aware that far-reaching changes are impending. Newspapers and the radio are their principal sources of information. The village has about 100 radios; 13 out of the 32 people attending the meeting had radios, but not 1 of the 13 was a tenant.

The village has had 60 disputes, arising from claims of landlords for the return of some of the land cultivated by tenants. However, they have regained only 90 tan or an average of 1.5 tan. The land committee passed on every case. In the opinion of the village officials the demands were reasonable. The distinct impression left with this observer is that the newly elected land commissions will not be guided by the provision of the Land Reform Law which establishes November 23 as the date on which the state of landownership is to be based; they will not reopen cases already settled.

In this village one could not help being struck with an example of democracy in action. In bold letters, framed and prominently displayed on the wall of the office of the school principal was the following inscription in English: "Democracy is the matter of the facts, without naming anything." This seemingly meaningless statement is no reflection upon the principal's devotion to democratic ideas; only his knowledge of the English language was faulty. A reasonable translation from the original Japanese is: "Democracy is not a matter of form but of practice."

